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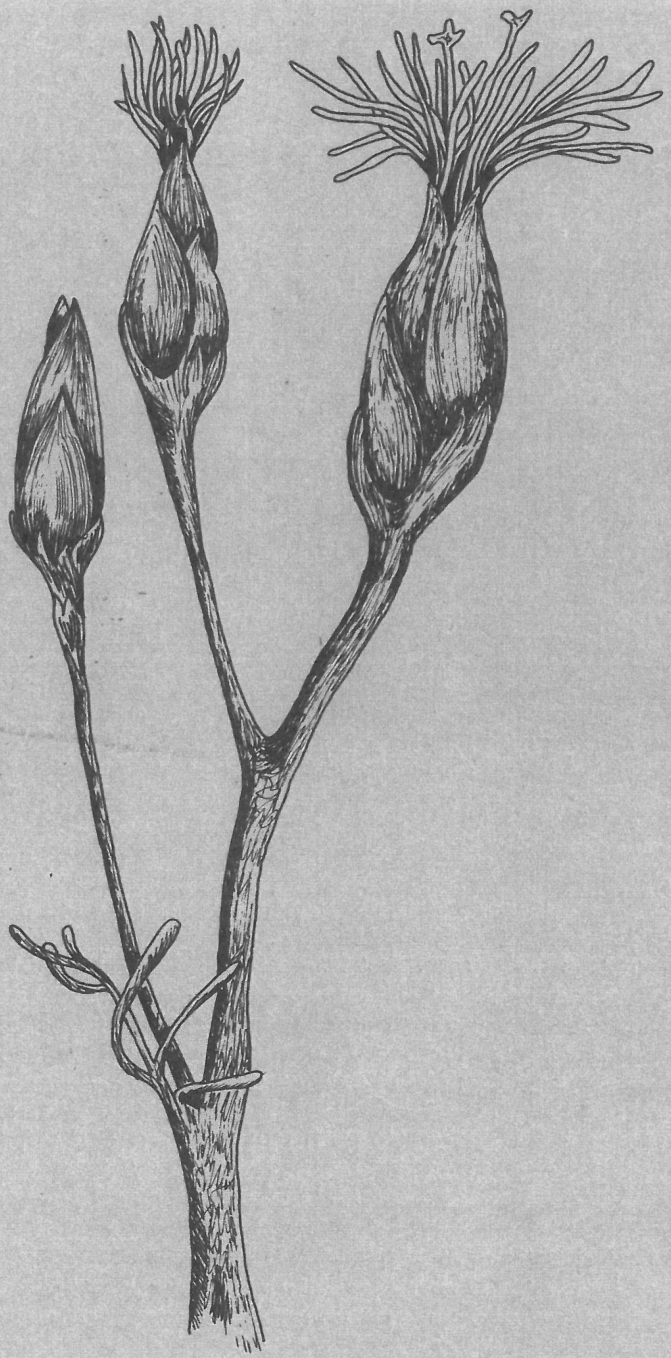
Eradication of Common Crupina in Idaho

Environmental Assessment
March 1991



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Environmental Assessment

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1. Purpose and Need

A. Background

Common crupina (*Crupina vulgaris* Cass.), a noxious weed, was discovered near Grangeville, Idaho, in 1968. Native to Asia and Europe, it has created economic problems in southern Russia. A winter annual, reproducing by seed, it pioneers overgrazed south-slope rangelands eventually forming pure stands (Miller, 1982).

Common crupina has evolved over thousands of years, developing the ability to survive in harsh environments by genetic adaptation. Native plants are physically damaged by intensive grazing. This results in a retardation of growth while energy is channeled into repairing structural damage. Since noxious weeds are not preferred by livestock, they have a competitive advantage and often replace these native plants.

Common crupina has a brief viable seed life of only 29 to 32 months, which is atypical of other noxious weeds that have 5- to 15-year seed viabilities (Thill et al., 1985). This short longevity period for seed viability improves the probability of complete eradication. Using multiple treatments over a 3- to 5-year period would prevent seed production and eradicate common crupina.

Common crupina meets the federal, state, and county legal definitions of a noxious weed. The U.S. Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS), has the authority to control common crupina to prevent damage to desirable plant communities.

Noxious weeds deprive landowners of economic opportunities, threaten the preservation of native plant communities, and affect the wildlife and fish that depend on these habitats. The use of public and private lands for outdoor recreation is being affected by infestations of noxious weeds.

In the Pacific Northwest, 63,500 acres are infested. Of these, 55,000 acres are rangelands of north central Idaho in the counties of Idaho, Lewis, and Clearwater. In the proposed program area, intermingled ownerships of the U.S. Department of Interior (USDI), Bureau of Land Management (BLM); the U.S. Department of Agriculture (USDA), Forest Service (FS); Nez Perce Tribe; State of Idaho; and private lands are infested. Washington State has a 480-acre infestation in Chelan County. Oregon has 8,000 acres in Umatilla County, and California a 20-acre infestation in Sonoma County. British Columbia, Canada, recently eradicated one small infestation.

Since 1979, APHIS, in cooperation with the Idaho Department of Agriculture and the University of Idaho, has studied the feasibility of

eradication.[1] A current information series report describing the identification and biology of common crupina was widely distributed by the University of Idaho (see appendix F of this document).

A 10-year feasibility study (Thill, 1988), with a Phase 1 Operational Eradication Trial, was completed in 1988. An agricultural extension bulletin based on this investigation serves as a state-of-the-art manual for eradication of common crupina (appendix A). Based on this research and operational trial, APHIS and the Idaho Department of Agriculture have concluded that eradication is technically feasible.

The use of registered herbicides, including those restricted by the U.S. Environmental Protection Agency (EPA), is required in some cases for the eradication of noxious weeds. The Bureau of Land Management and the Forest Service have conducted detailed analysis of human health risk from exposure to herbicides when used in accordance with registration label instructions and project mitigation designed to prevent human exposure.

In October 1986, the Forest Service issued the Intermountain Region Noxious Weed and Poison Plant Control Final Environmental Impact Statement (FEIS). In December 1985, BLM issued the Northwest Area Noxious Weed Control FEIS (USDI, 1985); a supplement dated March 1987 was added to this FEIS. The Pacific Northwest Region of the FS issued the Managing Competing and Unwanted Vegetation FEIS in November 1988 (USDA FS, 1988).

These FEISs fully evaluated human health risks based on available studies. This environmental assessment (EA) tiers to and incorporates by reference applicable information examined by BLM and FS. Herbicide treatment prescriptions for this project recommend application at rates one-half to one-third of those analyzed by BLM and FS. Therefore, human health risks will tend to be overstated by exclusive reference to these FEISs without a review of this project's operating procedures and mitigation measures.

Site-specific EAs have been developed by the Nez Perce National Forest and the Cottonwood District of BLM for control of noxious weeds. The Clearwater National Forest is developing a site-specific environmental assessment to address management of noxious weeds. Federal and state agencies are using the same EPA-registered herbicides for those infestations as are being considered for use in this EA.

B. Project Information

Results of a 1990 survey (Idaho, 1990) show that 49,500 acres in Idaho County are infested, representing 90% of the infestation in north central

[1] See glossary on p. 67.

Idaho, with 5,500 acres in Clearwater and Lewis Counties. The Nez Perce Indian Reservation contains 80% of the infestation. From 1981 to 1990, the infestation increased in size by 33,000 acres.

There are 234 infested sites in this proposed project area, ranging in size from 10 to 4,800 acres. These micro-infestations are widely distributed and are located on public and private lands, in equal proportion (appendix B—Common Crupina Site Data; and appendix G—Infestation Vicinity Site Maps 1, 2, and 3). Each infestation vicinity map shows the land status, identifies with a unique number each proposed treatment site, and shows the known boundary of each infested area.

Landowners and agencies have attempted to deal with this invasion. However, coordinated action is needed to minimize the threat. Before the infestation expands to new areas, a federal decision is required to address the problem. The following three key decisions are needed:

1. What methodology would be most effective in minimizing the threat from common crupina?
2. When will projects be implemented and for how long?
3. On a site-specific basis, where will the project actions take place?

Common crupina poses a threat to rangelands, native plant populations, export-marketed agricultural commodities, and wildlife. As the infestation spreads to Washington, Oregon, and California, the probability of minimizing environmental and economic impacts is reduced. This EA examines and documents actions for eradication including taking no federal action, and analyzes the potential environmental impacts and effects of each alternative.

Implementation of an eradication decision would result in an immediate project. A strategically located project office would serve as the operations and logistics center. The staff would coordinate common crupina project work starting in 1991, with full project implementation starting in 1992.

Full implementation consists of conducting pre-treatment site surveys, providing a liaison with landowners to develop agreements for treatments, and negotiating and defining temporary changes in resource use and management. Finally, coordinating with APHIS and USDA Soil Conservation Service (SCS) to plan post-treatment revegetation and seeding operations with landowners, if needed, to complete site treatment.

Sites would be selected for treatment based on a priority system designed to stop the spread of common crupina. Each site would be analyzed to determine the potential for seed production and transmission. A treatment sequence would be developed to eradicate micro-infestations located on the perimeter. Treatments would be timed to effectively eradicate common crupina with the least environmental impact. APHIS is developing a monitoring plan to measure and gauge the effectiveness of the project design to ensure operations meet environmental protection and eradication goals.

The environmental analysis and documentation given in this EA conforms with USDA and APHIS regulations for implementing the National Environmental Policy Act (NEPA) (44 FR 50381, August 28, 1979) and the Council of Environmental Quality (CEQ), regulations 40 CFR Part 1500-1508, July 1, 1986. Consultation with USDI Fish and Wildlife Service (FWS), as required under Section 7(c) of the Endangered Species Act of 1973, was completed (appendix E of this document).

A scoping interview process and field reconnaissance of infested sites was used to identify relevant issues this environmental analysis should address. Extensive consultations were held with public interest groups; universities; counties; the departments of agriculture of the states of Oregon, Washington, and Idaho; Idaho Departments of Fish and Game, Lands, Public Health, and Environmental Quality; USDA, National Forests and Soil Conservation Service; USDI, Bureau of Land Management and Fish and Wildlife Service; the Nez Perce Indian Tribe of Idaho; and many other interested parties.

Based on interviews and correspondence from major landowners, this EA addresses the following nine public issues, concerns, and opportunities:

1. Compliance with the State of Idaho Noxious Weed Law, Section 22-2444, Idaho code.
2. Economic impacts of taking no federal action to eradicate common crupina infestations.
3. The change in biodiversity resulting from continued expansion of common crupina.
4. Effectiveness of eradication versus control strategies and their economic and environmental feasibility.
5. Effectiveness of alternative methods for eradication.
6. Coordination of eradication efforts with landowners' post-treatment resource management activities to control the spread of common crupina and limit vector transmission.
7. Economic efficiency and benefits of alternative methods.
8. Concerns over the impacts and effects herbicide use may have on the following:
    a. Human health
    b. Fish and wildlife
    c. Nontarget vegetation
    d. Threatened and endangered plants and animals
    e. Water quality of surface and groundwater
    f. Soil stability and long-term productivity
    g. Native American plant use and gathering activities
    h. Conflicts with fall hunting seasons
9. Temporary changes in land use from common crupina project work.